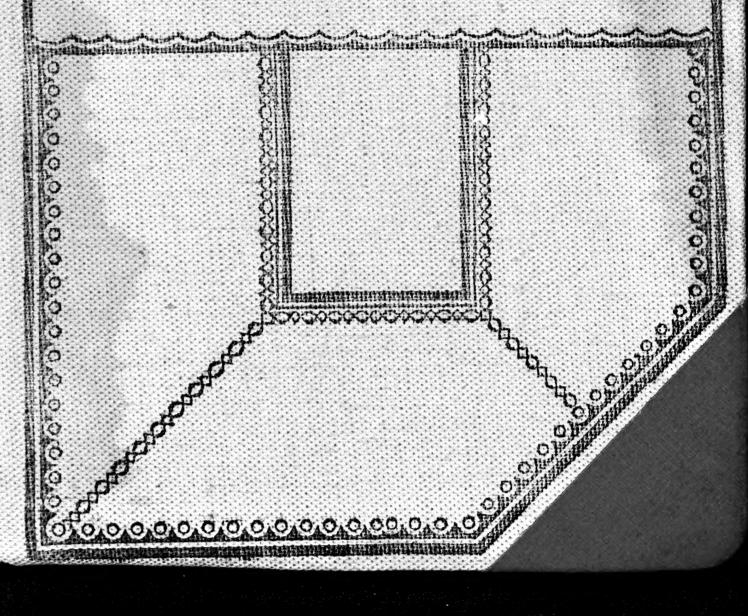


# In the Car (in) In In)



# F.R. Forsberg

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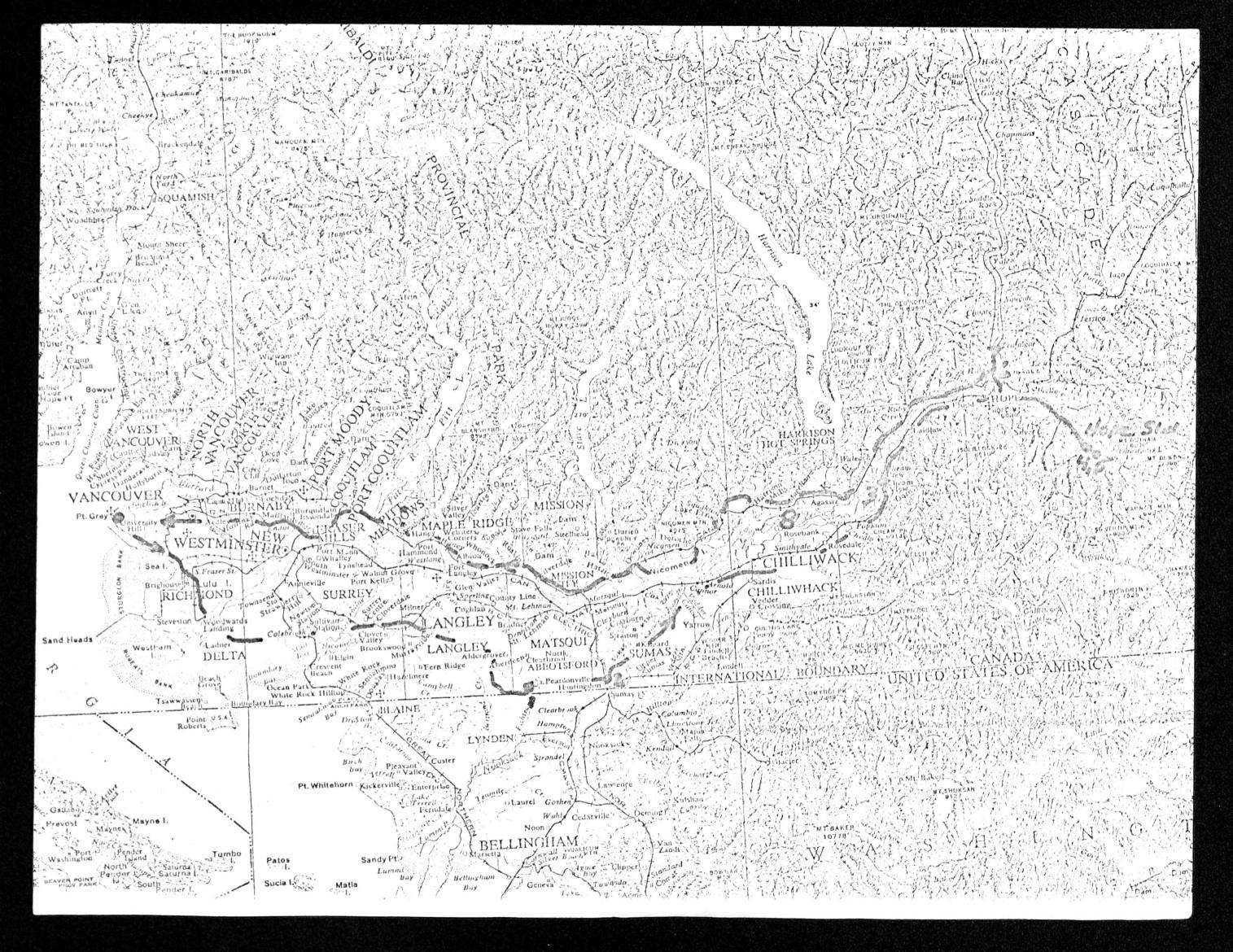
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## ITINERARY --- COAST FIELD TRIP

FRIDAY, AU	GUST 24 (All Times Daylight Saving)
8:00	Assemble, 30th Street and Campus Way, O. S. U. campus. Buy lunches, if desired-\$1.00. Riders will be assigned to cars having space.
8:30	Leave O. S. U. campus, proceed west on Highway 20, via Philomath, Bloggett, Burnt Woods, Eddyville, to Toledo. At Toledo, turn left (south) on old road to Newbort.
10:15	Arrive at first stop, at salt marsh between Toledo and Newport. Park in single line along shoulder of road.
11:30	Leave salt marsh. Proceed through Newport to Yaquina Bay (Newport) State
1:00	Leave Newport, go south on Highway 101 to a point ca. 2 miles south of Yaquina Bay Bridge. There we will park in single line along shoulder of highway and walk west through some woods to an area of marsh and sandy beach.
2:30	Leave this locality, go south on Highway 101 ca. 13 miles to a spot ca. 1 mile north of Waldport. Park in a line along shoulder of highway, and walk west toward ocean to see coastal forest and dunes.
4:00	Leave here and proceed south, through Waldport, toward Yachats. Check in at motel (The Adobe or Deane's OceanSide, both a short distance north of Yachats) or find camping site at one of 3 suggested state parks near Yachats.
SATURDAY,	AUGUST 25
8:00	Assemble at The Adobe; use same travel arrangements as on Friday, unless
8:15	otherwise agreed upon.  Leave The Adobe, proceed south through Yachats to Cape Perpetua State Park.  We will go first up the high road to the lookout point, then down and into main part of park. Drive to parking circle at end of the road.
10:15	Leave Cape Perpetua Park, drive south on Highway 101 ca. 19 miles to the Mercer Lake turnoff, 5 miles north of Florence. Turn left (east) and go for ca. 1/4 mile; park in single line on shoulder of road. We will walk down to a Darlingtonia bog, through a forest of pines, cedars, and hemlocks.
12:00	Leave the bog and drive south to Florence. Lunch can be purchased at various restaurants there. We will use Goddard's Restaurant, 2 miles south of Florence, as a rallying point.
1:00	Meet at Goddard's Restaurant to proceed south from Florence 8 miles to Carter Lake Forest Camp. This is an area of active dunes, encroaching on a coastal forest.
2:30	Leave Carter Lake and return north to Florence on Highway 101. The shortest return to Corvallis is east via Highway 36 (shown on your mimeographed map as U.S. 28). It is 90 miles from Florence to Corvallis, and a good two hours' drive. Highway 36 joins Highway 99W, north of Eugene, and you can follow the latter highway north to Corvallis; or, if you are alert, there is a connecting road north to Corvallis at Cheshire (on Highway 36, 4 miles before the junction with 99W); Cheshire is ca. 63 miles from Florence.  On Highway 36 there are some possible stopping points not on our formal itinerary. From 1 to 3 miles past Swisshome, 24 to 27 miles from Florence, there are some high, wet cliffs along the road that could be searched for ferns. Farther on, just west of Triangle Lake, ca. 40 miles
	from Florence, there is a large parking area that gives access to a douglas fir forest.

A car will lead the group back to the University, without making these stops; but if any cars wish to stop, they should have no difficulty

finding their way "home" to Corvallis.

#### Notes:

1. Transportation. The total mileage is approximately 225 miles. Guest riders should make appropriate arrangements to share in travel expenses. A suggested way to handle this is to pay le per mile per passenger; but some other system might equally well be agreed on.

2. Oregon Highways. These are generally good. However, there are often dangerous curves; and logging trucks are an ever-present menace. I am especially concerned that everyone be most careful getting in and out of cars where we park. We are taking a chance parking on rather narrow shoulders, so one must be alert for oncoming vehicles. At any of the stops on Highway 101, please be sure your car is completely off the pavement

when parked. 3. Botanizing. At each stop, we hope you will use the mimeographed list of species to help identify the plants you see. Two of the stops (Cape Perpetua and Carter Lake) are in State Parks, where collecting is not allowed. At other places, I think modest collecting will do no damage. We have been asked to preserve the Darlingtonia plants, however, and not to pick any at the place we stop. There is a spot nearby where someone has bulldozed part of the bog and where some plants of this species may be available (if they haven't already died). Oregon, too, suffers from the virus of creeping commercialization of her shoreline.

O. S. U. staff members who will be on the trip are Dr. K. L. Chambers, Dr. William Chilcote, and Miss La Rea Dennis, all of whom will be glad to try to answer questions.

Motel. People who have sent money for reservations will be staying at The Adobe. Dr. Chambers will give you your room number and roommate's 4. name. He will contact each of you at the motel Friday evening and, if necessary, either refund part of your payment or collect from you. We hope you will enjoy the ocean scenery from the motel, and will take the chance to botanize on the sea bluffs and examine the rocky tide pools, surge channels, algae, etc.

Camping. There are three state parks near Yachats having a total of 102 overnight camp sites. Beachside State Park, 5 m'les north of Yachats, 5. has 40; Cape Perpetua, 3 miles south of Yachats, has 48; and Neptune, a mile farther south, has 14. Food can be purchased in Waldport or

Yachats.

Meals. Box lunches for Friday noon can be bought for \$1.00 each, when we 6. assemble at the O. S. U. campus. There will not be enough for everybody, however, as I expect some families will have their own food with them. There are also restaurants in Newport.

Dinner and breakfast can be obtained at The Adobe or Deane's OceanSide --- as well as at other restaurants. Lunch on Saturday should be gotten at restaurants in Florence; we will rally at Goddard's Restaurant, but they can serve only about 30 at a time. Saturday evening after we get back to Corvallis, the O. S. U. Commons Cafeteria will be open to serve us from 5:00 p.m. to 6:00 p.m., or a bit later.

# TOLEBO SALT MARSH (and vicinity)

Polystichum munitum -- Western Sword-fern Pteridium aquilinum -- Western Braken-fern Zostera marina -- Eel-grass Triglochin maritima -- Seaside Arrow-grass Distichlis spicata -- Saltgrass Agrostis palustris -- Creeping Bent-grass Hordeum brachyantherum - Meadow Barley Anthoxanthum odoratum -- Sweet Vernal-grass Deschampsia caespitosa -- Tufted Hair-grass Carex aperta & C. hindsii -- Sedge Scirpus robustus - Marsh Bulrush Scirpus americanus -- Three-square Scirpus microcarpus -- Bulrush Juncus effusus -- Common Rush Atriplex hastata -- Halberd-leaved Orache Salicomia ambigua -- Woody Glasswort Potentilla pacifica -- Silver-waed Rubus parviflorus -- Thimble Berry Oenanthe sammentosa -- Water Parsley Heracleum lanatum -- Cow Parsnip Vaccinium ovatum - Evergreen Huckleberry Cuscuta salina var. major -- Salt-marsh Dodder Grindelia stricta -- Oregon Gum-plant Alnus oregona -- Red Alder Rubus laciniatus -- Evergreen Blackberry Achillea millefolium var californica - Yarrow Cotula coronopifolia -- Brass Buttons Erechtites prenantheoides -- Australian Fireweed Epilobium angustifolium -- Fire-weed

Atriplex patula -- Spreading Orache Conioselinum chinense -- Hemlock-Persley Orthocarpus castillejoides -- Owls-clover

# NEWPORT MARSH AND SANDY BEACH (and vicinity)

Struthiopteris spicant -- Deer-fern Pteridium aquilinum Pinus contorta -- Beach pine Picea sitchensis -- Sitka spruce Poa macrantha -- Seashore Blue-grass Elymus mollis — Sea Lyma-grass Calamagrostis nutkaensis --- Pacific Reed-grass Agrostis palustris -- Creeping Bent-grass Ammophila arenaria -- Beach-grass Anthoxanthum odoratum -- Sweet Vernal-grass Juncus balticus -- Rush Juncus lesueurii -- Salt Rush Carex obnupta -- Slough Sedge Maianthemum bifolium Cardionema ramosissima -- Sand Mat Cerastium arvense -- Field Chickweed Myrica californica -- Western Wax Myrtle Polygonum paronychia -- Beach Knotweed Fragaria chiloensis -- Coast Strawberry Lathyrus japonicus -- Beach Pea

#### NEWPORT MARSH -- continued

Potentilla pacifica -- Silver-weed Comarum palustre -- Marsh Cinquefoil Salix hookeriana --- Willow Sisyrinchium californicum Abronia latifolia -- Sand-verbena Lupinus littoralis -- Beashore Lupine Lathyrus littoralis -- Beach pea Cakile edentula - Sea Rocket Armeria maritima - Sea Thrift Hypericum anagalloides Spiraca douglasii -- Western Spiraca Gentiana sceptrum -- Staff Gentian Convolvulus soldanella - Horning-glory Centaurium umbellatum -- Centaury Plantago lanceolata -- Plantain Lonicera involucrata -- Twin-berry Rhododendron macrophyllum Gaultheria shallon - Salal Arctostaphylos uva-ursi -- Kinnikinnick Franseria chamissonis -- Sand-bur Hypochoeris radicata -- Cat's-ear Achillea millefolium --- Yarrow Aster subspicatus --- Aster Solidago spathulata --- Sticky Goldenrod Vaccinium ovatum -- Evergreen Huckleberry Galium trifidum -- Small Bedstraw Vaccinium uliginosum -- Blueberry Sieglingia decumbens Agrostis pallens -- Seashore Bent-grass

## WALDPORT DUNES

Most of the above, as well as:

Pern Botrychium silaifolium -- Leathery Grape-Carex macrocephala - Large-headed Sedge
Spiranthes romanzoffiana -- Ladies Tresses
Habenaria greenei -- Rein Orchid
Rumex maritimus -- Seaside Dock
Ranunculus flammula -- Creeping Buttercup
Sanicula arctopoides -- Snake-root
Glehnia leiocarpa -- Beach Silver-top
Angelica hendersonii -- Angelica
Baccharia pilularis -- Chaparral Broom

#### CAPE PERPETUA

Polystichum munitum -- Western Sword-fern Athyrium filix-femina -- Lady-fern Struthiopteris spicant -- Deer-fern Polypodium scouleri -- Leather-leaf Polypodium vulgare -- Licorice-fern Selaginella cregana -- Selaginella Equisetum telmateia -- Giant horsetail Picea sitchensis -- Sitka Spruce Tsuga heterophylla -- Western Hemlock

#### CAPE FERPETUA -- continued

Malanthemum bifolium -- False Lily-of-the-Valley Cxalis oregana -- Oregon Oxalis Lysichitam americanum -- Skunk Cabbage Ribes bracteosum - Stink Currant Rubus spectabilis - Salmon Berry Rubus parviflorus -- Thimble Berry Alnus oregona - Red Alder Montia siberica -- Candy Flower Menziesia ferruginea -- Rustyleaf Vaccinium parvifolium - Red Hackleberry Vaccinium ovatum - Evergreen Huckleberry Gaultheria shallon -- Salal Stachys sp. -- Hedge Nettle Sambucus glauca -- Blue Elderberry Sambucus callicarpa -- Red Elderberry Petasites speciosa - Western Coltsfoot Bellis perennis -- Daisy Scrophularia oregana -- Figwort

## DARLINGTONIA BOG AND FOREST

Struthiopteris spicant Pteridium aquilinum Pinus contorta -- Coast pine Thuja plicata — Western Red Cedar Tsuga heterophylla -- Wastern Hemlock Pseudotsuga menziesii - Douglas Fir Myrica californica -- Western Wax Myrtle Lysichitum americanum - Skunk-Cabbage Darlingtonia californica - California Pitcher-plant Drosera rotundifolia - Sundew Ledum columbianum - Labrador Tea Pterospora andromedea - Pine Dropa Rhododendron macrophyllum -- Rhododendron Gaultheria shallon - Salal Vaccinium ovatum - Evergreen Huckleberry Arctostaphylos columbiana - Hairy Manzanita

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Calpe Lable Prairie blat saline mosaic of Boridia, tractina, Bates, Sprobolus virginius offen mud flats with salt - on a dence very fine stiff clay-like mark. Patcher of Great - Gasley but by human -Conditions change sirustically from immendation on her water, long dry periods, high salt content afte hunicanes - when yourned the surface was dusty (dust dun. raid to form to 0.7 m. ? high) but in lowest spots the mad is maint 3-4 cm. down. dark gray, salty to treate. Paspalum distichum where old cotton pradication camp stord. Other areas, too. a very slight beach ridge. of similar mand, perhaps only a few on difference. has a row of enveryous. Infrace of ground, where bare, dies unto a polygonal pattern, bythe polygons, rather than indicating simple shundrage, sa a to inhable late or passion, as the crack, bulge:

Inland the humane damage is very muchy not takening off gradully. Then a large area of rather less damage.

a broad zone amound
the main mangrave
wamp has low bushes
of Rhizophora, in place
forming a mosaic with
area of saw grass. Mostly
1-2 m. talf, some patches
more. Becomes very sparse
inland, scattered very
small ones in the cladium,
well inland these are
mainly seedlings.

Saw grass near edge of pinclands bus a is on a mark surface just ort water table frattered cobbles of limestone.

In sow opper are scattered clumps of shrubs and trees - mostly bumps in the limestone surface. forme are peat elevations. Clumps of Taxodium are basin.

of dwarfed Taxodium ( grand express tobe).

scallered in saw gras. Trees are very old, at least have very thin ring, are. Robertson younties of the manyor Theries, ac. Robertson is very confused and not at all clear in the park area. The death of the Khizophan Laguncularia, and avicennia over large areas resulting from the humane, is very remarkable, ar in many places the trees seem not to be of driving injured Gust as in quam).

47973

42973 Hedyotis riginars on. common on companies ground along strip.

flowers white or almost &

8.28

Then a strif of mostly ofpen water The part toward the Flamings road is world mangrove with myriads of ting fromas. The coastal parties perhaps 1/5 the indth of the mangrove swamp, is light gray mangines billed by Aunicano Donna, The water in the larger water bordies in the swamp is a blackish dul from. In some of the smaller fonds it is chordate brown the Datis in the destroyed mangine is rather tocal apparently much Matis and other low regulation. perhaps floating, in the neighborhood of the old carair The whole inner bape fable area broker generally unhealthy. Whuch mark in tidal channels in oute Cape fable - they look milly or Eafe or last colo Very long sand beach lives rape fable island, the outer side. The ocean is a dull per green off the Cape some distance and & becomes mottled as through there were some new y with . not dea

relation to origin of sand keys. 1) estimand are areas Emall dunes many of them almost like banking. convex northward. The locally superimposed on much larger underlyting setwal frattern. The whole pattern fractes out and disappears in deeper water westward, with a prolongutant southwest. Water is, much deeper to west both still mat a Langarum (?) floating sait of Tortugus. domo of it seems to form a line along an about decliening, and least change in who of water running n-s just as East Key Tortugas armes in view. bast Key grassy with some bushes Middle or a crescent shaped the state key of on with a patch of busher an a patch of grants Vhotos of garden Bruch, Ring Key, tragerhead in distance. forgerhead as a considerable growth of Casuarina from end & end, rather thick on

wertly and Many Coronits in senter and a row toward north end. apparently boulderidges on east stide of Long Key.

1962 Florida Jug. 2 - Tortugar Bush Key - Inner depression Laguncularia (Photos, Long Key comples end of 62-8, inside), no Emsiderable low send of avicennia and other plants in this aren except on two a few much Laliernia on Coerobita Rhizophoa ground bare. arture the one bond ringes mit lette vegetation on onle vides. flats and beach ridges. The plats covered in I me or two Luciang vulles Luciana semb, 1 smill in small and Opunted in openings, Castraina 0.4 m. Tall. Sesumment breatly sporobolusions, mat, of servium mostly on low spots. got Beach ridge I egazindal atriplez. with herwinen & patolos Cuphobia meremorianthemissians mat, flowing andrew. down outs beach. slightly elevated pebble Page. The following is forme relatively ear place in ferring all on areas occasionally so, by forty terns, mattered flooded, pebble bottom on sand and periles. have Univer on flats Small number of Chigophora up to 1 m. tal in water on inner In the Lagunsularia shore of more listed part frest is atthin layer of peut under the little, then love course sand much with humans In the wader part of this borest is a foir sired from Jeeler bushes of Convershow and one of

Inside the fort the parade

lawn of Cynoden Stenotaphrum, Eragrostus geningening

ground is a morred grass

with scattered planted

Trees of Bursera simaruba, Blecheria elliptica, Phoenix printibile datylifera, Tamarindus Committee of a indicus, landanus tectorius, Thespesia populnes Conocarpus, Morghinsillea Cordia sebastera Coros Terminalia catappa, Crecoloba uvifera, Delonis titharrylan a number of mamentals are planted her - Malvaviseus grbonen Catharanthus roseus, Rhoes spathacea, aloe vera, , Caesalfinia pulcherima, Pedilettus Tithymaloides, Codiaeum variegatum Something Hymenocalli litterali, Setcaeasia purpunea orthodox Serval weeds are abundant min Ber Cuphabia Blodgettii Extende Chyllanthus amans, Eragostis ciliaris, Corryza canadami werding Ridens leucanthy metamportion flora Brachiana, Liphia modifina, Capraria, Lepudium, gaillardia, Weeds seen outside only -Enphabia prostrata Portubucy States of Condy

> On the beach cast up, no Thalarria tertudinam, Diplanthers wightin Syngmishin filipamis

1942 Florida Dry Tortugas atol 16 17 aug. 2 - Bush Ken len low sand islet / Than Im stemmed shirt in. Solanum thicket in edge of manging tall diffusely branded, stail. 75 Philosoms vernicularis (1.) 1. very local is open crecking, forming furiang serie love mat. 76 Euphobia mesembianthemifolia Jacq. Tall smewhat glaveres. common locally on low come sand ridge 77 Khizophna mangle L. with arching proprosts. a few trees in wet thicket Lagunulain Scaevola plumieri (1-)1. show up to 0.8 m. tall. leaves gleshy; flowers white. small patch on sand flat ang. 2 garden Ken on flatorandly ground 79 (genx) Elisterna exaltata (L.) y. Don erect glavers; flower nave in old ant purple. to imphabia blodgetty Engelm ex stem ascending arching Hitches. common in mich of old fort at try. culms decumbert, spreading 81 Digitario brigontalio Will. orrasimal on wall of old fort entraf crown. 82 yhere planifolius L. c. Rich. occasional a back of show mending caps. 83 Cenchrus common is crache is old consiste pavement erect 34 Congra canadensis (L.) Crong common in crown in old concrete pavement 35 Digitaria weedy places stem desumbent.

42986 Melantherg niver (L.) Small much branched here common in weedy place flowers white, head, bernigheres. 87 Didens leverantly rays white. occasional in weedy places 88 fondhus oleraceus L. erect glacions The in weedy places leaves searlet. rephortis heterophylls common is weedy placer sulms spreading 10 Cenetros common in weedy places prostrate, purple. I hiphorbia prostrata? in craches in old convicte pavement shoul 2m, tall, 92 Conscarpus erectas f. leaver silvery. rare ( with common green form) shoul 3 m. tall, 13 Conscarpus erectam . Common leaves green. 94 Cupholing glomerifers? flower white. occasional in weedy places 95 Englishing blodgettin Engelm. ex Hitche stern ascending. mare in weedy place 96 Cynoden daetylon (C.) Pers. forming a mat. common depressed much branched plant, flower light purple 97 Stackytarpheta jamaicensi common in weedy places 98 avicennia germinan, (1.)1. shoul 2.5 m. Tall local in ever wet place leaves white beneath, flowers white 99 Cyprem planifolius K.Dr. L.C. Rich. carpitose.

Florida Dry Tortugas cetal 1962 23 Lipping modifical. prostrate, somewhat fleshy. occasional desmanthus prostrate occasional 12 Lida prozumbens prostrate common 13 Lynghedium filiform Kütz. leaves terete. thrown up on beach, 14 "hyllanthus" amanus Schum. + Ch. erect occasional inside fort 15 Euphorbia hinta L. common inside ald fort 16 kida acuta burm. J. occasional inside old fort Lagrostis cilianis (L.) R.Br. erect. occasional inside old fort to Diplanthers wrightin (Asch.) Asch. leaves flax. thrown up on beach 19 Lagrastis domingensis (Pers.) small tufts common incided got prostrate, flower white. no Suppio modiflara L. occasional inside old fort 21 Graduaria from stolens. abundant locally near distr my gaillandia rare in old fort Caprang biblion rare in old fort 24 Helistropium parviflorum flowers white rare in old fort 25 tepidium completely dead. nav in old fort

land on top of old walls has a number of weeds,

north love of sand -Largely a Uniolg flat with patches of Luriang, va, Sprintia, me small therperis, in small Mangroop Khizokhog and a small serling in more, o. Cyperus la Aprobolus c fromoea who c The anthery l' Sestrania I dear large plants lowing smill mes) Cynody dactylm I tacky tay heta jam Desmanthus Aida procumens ruppalin meren I puntice lilenin Leaver a plumien Canavalia la ymenocallis ec Emphabia he terophyla c Ridar beneantha alba te atribles hentandes

aug. 3 - Tortugas to Key West Sea east of Tortugas a dull slightly greenich blue very quiet. Marquesar har a very convincing atol shape. (photos) West of Marquesa, the bottom frattern is of sand and brown patches that suggest quantities Auggestion of a secondary lagron or form on m. w. side inside of rung. This is very shallow, seemingly mad connected with tidal chunnel in bottom bende it. another series of channels in mangrove leads right into a channel on the lagoon bottom. Remarkable regular patterns in sand patches on bottom east of Manquesas. Boca grande key has a lagon-like prong, mangroves on north note, quant?) mouth. Mangroves over last and west Und large me from en also hava find I mall mer all are solid patches of mangione

almost nothing growing sends lasuring showing shorts along shigumes. Carrier of shorts along shigumes. Carrier of the rome to rome and to rome the rome to this hets of Cordia sebestera. Servel of fundamenta.

Alma sast shore of In dune ridg, soul 7 m. about 1. t., cut to a shap escarpment by wares.

a number of beds of subme ged beachnows along this show just outsid the fresent beach.

a canlescent agave with anterior prichly anterior prichly medges of las, forms thickets in the Luciana agave sesalana, also forms patches.

Luciana sent one most of south, end which is open free from

about 10'X1

Plants Cordia reportens inglinoin beterophylle Call linea lfd. 2. mesendrianthemolia Lesurium portulacastrum Melanthery nivey I mefortra graphalodes Unoly praniculate (tymenocallis agane of hispide Cenglines echinatus Canavalles For Corryga canadensis agare sisalang Iformoen tuby J. per-caprae Sperovolus virginieus anicum maximum Catharanthus rosers Lesurium portulacastrus

Burds Mouning down

Casuaring for most part.

anhorn hispida

tom large haterer

with a few for I purity

plants va n beach

ridge

Aprobolus fairly

general but not

abundany Tournefution

occasional on sandridge.

furiang is cocally

alead a hartly so

around amposis patches

thomose tuba local

on Luriana.

Near s. end an offenny in turnang has a Ruph weren Chhh. heteroph. Boerhavez, Ipomoea tuba is dominated by univer. rewer ??? sand flat, Tva, seattend Luciana, Higher toward and being underent, (photo) bittle veg except spang photo 1

less spen igane sisalam. Natch of Panieum maximum.

Dead roch along central point, perhaps intertidal or just below. One strip several beds. Motherand corner closer to surface and near old Cale cuesta is above surface of water.

The central part and lasturbed, no significant veg tation pattern. Carring and Grove abundant here Cordin Thirebets, also, and

There seems to be no noch nor gravel above high tide level nothis hey. Beach rock below. The sand in general is Halimeda (Lample)

said to be from n. w. very strong at times for many days at a time. Changes onthine of treep very much at times.

general - Portugas Keys

I indo 
In Bush Key are very

numerous # sooty tecks,

a great many of

them fully grown young.

Laid to leave in middle

fept. and return in april.

Small colony of frigate

birds on Bush Key.

A white heron with yellow

bill on garder Key, frew to

Bush Key.

Q willet on Long Key.

A large number of common

noddies on Bush Key, nesting

with mostly almost grown young, fully feathered. Leveral trunstones along beach, Bush Key.

Leveral Royal terns Elying bet garden Eine Loggerhead.

aug. 3 - Loggerhead Key on coleaners sand around lighthouse building, 27 Dursena simamba de. occasional in buing sent 28 Caprany biflora pare around lighthouse buildings 29 Sporobolus vingenicus L. 30 Enphobia generally around lighthouse building 31 Euphorbia birta 6. around lighthouse building 32 Engertis amabilis local around lighthouse building 33 Typerus planifolius? L.C. L. common in openings in Surrang semp. 34 Lolanum very local in Suriang roub 35 Boerhania recasional in openings 36 Usnez common on dead hurriang trung common on dead Auriang Twig 38 Uniola pariculata dominant in many ofrening 39 ambrosia hispida Pursh dominant in certain opening 40 tra imbricata Walt. volges and flats

flowers blue-purple.

showers blue-purple.

showers to m. talf, sterile.

furning loose so d is say

prostrate, purplish.

prostrate

small tufts.

shout 2 m. tall; ripo fruit bright red. prostrate; florerere rose-purple.

bright green

culms erect

prostrate, inflorencemen

erect

dense shout to o. 6 m, call,

leaves bright green.

garden heng wal Brenhavis Cenchrus exhinatus anghous Bidens lowcanthy Fachy targete fila procumbenz Conyya anadensi Capitaria Cynoden The anthery Enfrancia meson. Engrast, domingonis I punting di enin Totulacy oberaces red form) I promoes per-capias asuarina seedlings) Chloris petraca anavalra rose Bursen smariba (rapling) Cyperus planifolius

(from p. 25) all of key west of Key West except a few bars and one small one e of Borg grande are completely covered by mangroves.

Key Wist is completely covered by city. but many little mangrave partiles in water methy of city. Extensive weedy that around an strip.

East of Brea Ching
a great complex of herp.
On north side hundreds
of little mangrove
pottebres, locally framing
a maye. Some lange,
all mangrove-covered,
I idial channels in Them
mostly open at both ends.
Cartward the mangrove
key have more exposed
base flats around them.

West of Flamings bable In.
is cut by a number of
canals, dug many years
ago in an attempt to drain
the swamps. These seem to
cause mad to be stirred
rep in the waters they connect with.

Dry Tortugas atoll

calspitase

vins plowers magenty.

culms depressed.

stems prostrate to slightly ascending, becoming paniculate erect, tips arching.

small tree, 6 m. Tall.

small tree, 4 m. tall.

small tree y m. talk.

1963 Florida 40 Wiltherin indies L Psidium quajars L. planted shrub ang 5 - south of Homeslead along limestone road ambanhment above like. 71 Kosteletzkia vrzinica, locally common at water edge 72 impatrium coelestinum common aug. 5 - Key dargo, 8 miles with 3 73 Trema lamarchiana common in vatricle semb on raised reef limestone. aug. 5 - Key Largo, 6 mile north of Latre Emprise. in low frest on rissed relf limetons 74 Callicarpa occasional 75 Mourein water oranional 74 Lantana involuerata comminal 77 Mounda mare common 78 Guettarda common to 6.40

Dry Fortugas atol 41
eved; sterilo.

shrub 2 m. Tall; flowers
white,

flowered, main stem unbranched forver pinh. heads purple; herbage not aromatic.

shoul 0.5-1m, tall.

erect, sparsely branched,

- ipe print purple.

- small tra, florwers white,

- print range, fleshy.

- shrub 1:5 m. tall;

- print purple.

- shrub, to 1 m. tall.

- flower white, print turning yellow.

- tall shrub; print

immature;

Ang. 5 - trip from Miami is very range Mangrave Road across everglader separates the influence of sold water, while results from drainage, from saw grans. In oblitic limes time fill along rad across mangrave swamt

12633

12629

fewfish Creeks

Fache furprise

Key Largo - emerged reef.

Lall, deree but imegular

in places. Much metopium.

Bursera Piscidia

Virence se strundan

Chircosca Pryshotna

Mounda, frettania

thermous

influentina

Trees word - 2 m

apart 5-8 cm. del. Inequely,

sparie should be en

1-2 m. tel Morning on

ground everli shrows

and seedling, wot way

of these Jeterson in any

Character a, farry who would

Grand surface broker considerable with a considerable accommutation of letter and partially descriped litter, giving a false impression of smoothness as surface [Photos-begin 62-10 perhaps 8 frans)

Bayond this after an almost impelceptions almost impelceptions change to lower elevation replaced for the forest is replaced for about 1 m. tall, with

then a zone of Batis with scattered shruby

then a strip of mangrows, Phisophore Lagueralance

wide, French taller, then

the sea. iphotor of edge along road).

Faither north, on sh. beigher ground, the freet becomes taller, Lysiloma dominant nat least ommon. On the bay side the porest

is larger 8-10 m; this gives way to mangroves.

photos

The reef has a cap of a dense soft limestone, and surface, I matches the Chin patches at about the edge of the fate, and somewhat into the Shows through locally. (samples).

On east side of many north of Key Large large areas of dwarf mangine about 1 m. tall (Rhizphan). Do not grow taller except on disturbed soil of was embanlened, where they reach several times as tall. The scrub formed by the Chizophana is closed or almost so, no opvious explanation of dwarfing.

46 Dalbergia abundant, forming g scrub in open places, undergrowth in frest 80 Chiosocia alba abundant in undergrowth 81 guettarda rearrand 82 Psychotring common in undergrowth 83 Callinage recesimal ang. 5 - 8 mi. n. of Jewfisha. on coral fill road bank in mangrove swamp 84 Fustomy exaltata (1.) g. Don 35 fremours common 36 Empholia blodgetti: common

vine
shrub; fruit immature.

shrub; fruit immature.

shrubos m. talp

unbranched, plowers whitish,

light purple.
erect, flowers white.

48 1962 Virginia

Alle Virginia

Aug. 17 - fleefry Hallow

interpretation - land brest

413087 Tipularia discoln

orrasional

1 88 aplectrum hyemale

rare

19 (grass) Cirma anundinasca 5. commonlocally in more ofpen spots , 90 Cryptotalnia canadensis prendobulbs spale grayish,
scape ened, leaves none
at this season; florvers
dull brownish purple, column
pale green.

previolabell single, spale grayist; leafless at this season; reapes evet, prints pendent.

culterest, solitary.

erect

Shenandorg nat. Ph. 53 1962 Virginia ang. 19 - Orkney Springs Cing. 20 - repper part of slope from Big Mentows mixed frest, fring It tisher Jay. open to closed oals, etc. with a second growth low low show layer of server freet - of garylussing baccaty, Setula populifolia, Vaccinium stammeum, etc: mostly Ericaceae, Green spp. Traxinus. some small myssa. The front is very Liviodendin, Kyrus, dry, moss very/ many herbs in abundant, bring flower, isto, in openings. in places large patches or an almost continuous Chrysanthemum leucanthemum layer, this dry, where alliens cerning made of Levethyum it Solidago angula Monarda clinopodia is cracked into segments. agrilegia canadensis Daver carata Prinella vulgaris filene stellata aster macrophylly actrilles millefolium Orcalion (europea) Centaula maculoza In Hedystes burgues v. tennifolis Plantays lancerlata Impations pallida Eupatnium assignsum arelium minus Polygonum persicaria Dianthus ameria Lobelia inflata Artidago bicola Cimicifiga racemosa

52

Shenandows nat Pag 50 aug. 19-12 mile west 54 fame place where of Old Kag View Overlook Spiranthes was abundant on flyling Drive. non my 47 in spring. in spring choted my with sedges and moss. large clump, stem Cheline about , m. long; cirollar white with dull purps orifice. not crown deeply bunes. 92 Scipus common 93 Caresc common part flowering - root fleshy, horizontal. 94 Habenung common flower pinh. 95 Epilobium oursing 96 Botrychium 97 Hydrocotyle americana L. flower held. 98 Juneus common ang 20 Big Meadows, gap in low scrubby second I spean youth 99 Viola palmata d. commen in dense shade base of stem and roots mange 47100 galium arcalgans Thicky. calms solitary. 01 Lugula very local in moist densely grany place on slope

Shenandoah nat. Park 57 1962 Virginia yellow. (petiol winged) lolidago anguta ait. common ang. 20 - slope west of By meadows, trail to Lewis Falls in mised oak frest 03 Thelypteris hexagonoptera locally common 04 Thelypteris stem hønge, flowers 05 Coralophiza maculata bronze, lip white with deep purple spots. slems reddish. 06 Monotropa hypopitys var. capsules winged. 07 Liparis Wifolia occasional stem ryellow, flowere dull yellow. 08 Monotropa hypopitys va. americana occasional, locally common leaver firm, grag-green, veins white; ferwere white. 09 goodgere pubercens very local, under oaks aug 20 - low hill north of Big Meadows swamps in low mixed secondgrowth words. tangled in herbaceous 10 doublicarpa lovendant in vegetation; affected by powdery milden; small openings tubers on shigames; flowers dull rose purple. 11 Lycopodium complanatum vartri stachyum? forming a close mat, from buried to almost superficial. otd. on b. 60

any 20 - Big Meadows,

slote west from

trailer camp and prients pound.

Thick second growth

words of oals Betule

allegheriense, fuglans nigres

Prums, senting, etc.

Flower (not metalom)

Lapater canadensis
Hierarium paniculatum

Campanula divancata

Goodyera pubescens

Monotropa uniflora

monotropa hypopity.

Words and wesdows plants in berives (not noted above)

Hieracium scabrum aster marrophyllus folipago puberula a nomadi Rhus glabra Lactura (yellow) Cirsium discolo In swamp - in flower Cirium odoratum Languisorba conadensis Cienta Spirala latifolia Venovia glanca fobelia cardinalis Epilobium Perfoliatum Ridbielria lacimista Cupatorium perfoliatum Conium maculatum

Shenandoul nat, Park 61 1962 Virginia 60 43112 Solidago flowers yellow. occasional in openings aug. 20 - stream bed at lowerend of Big in dry beds of intermittent stream caefitore 13 Lugues occasional (commone in swamp) 14 poetes common in dried pools flowers white 15 Cicuta? common (abundant in opening in swamp) erect. 16 Thalistrum desecum L. common (also in sevamp) 17 Conium maculatum? erect, occasional (also in openings en swamp) carpitos, fruits maron 18 Juneus occasional in 19 Efilobium flowers finde orranional aug. vo in drainage ditchows at rupper end of Bring 20 Epilolium common decumbent at base. small trifts, culme erect, & abundant dense tryts 22 Cleochais common Femal trufts 23 Juneus orannal dense tryts 24 Juneus orranumas

H 1962 Virginia gration neglects aug. 20 lower endog Brig Meadows swamp in Alshagnum matted in other vegetation 26 Habenaria locally common Lycopus common galium tinctaium commo 29 Chilobium common aug. 20 west slope of Swift Run Jap in flat valley bottom in deep words. 30 Efrifagus virginanus uncommon, under large traju grandifolis 31 Coralonhya 32 Ondis spectabilis E. occasional on day ground 3) Hydrocotyle americana L! locally abundant in mud along stream 34 Erbelia puberula var. simulans Fern

stems very fleshy, prostrate; flowers

- stolens filiform; flowers viz erect; weak; flowers viz white both 3-and 4-fid.

plant bronze, buds purplish.

plant bronze, buds unspened; base bulbbur, above the white coral-like skingme.

forming a tangled mat

flowers flue-

flen, nat. Park 1962 Vingenia 65 43134a Ranunculus nare in wet ground along stream inflorence dry 1 35 fanifraga micranthidiffelia (Haw) Brit. locally common on wet ground along stream flowers lavendes 34 minulus alatus ait. locally ammon on not streambank stems almost erect. 37 galium lancestatum very local on dry rodry ground of petals white. 38 yourn canadense occasional aug. 20 - Pinnacles Ciknic ground small tree 8 m. tall; 39 Carya ovalis (wang) Lang. fruit immature, with ocharima prominent beels in reple half.

66

rug. 23 - flight from minneapolis a Vitland and west of minneapolis is generally green, has many later. They varying from clear und dark to muddy. The landin largely cut into a fratchionh of mostly rectangular fields, blocked off into squares by section line roads. There fields are mortly cultivated. There are some small fatcher of road and worked stream bottom lands and lake margine Many paleles of wind and (probably) marsh reflect old funds and stream courses. fine fields are truny yellow then gray, others black. Lome lakes are frantly changed to bog. We large patches of frest. Westward the imount of frest rapidly diminisher. Perhaps the amount of uncultivaled land - pasture not ent into small tratches increases Still many lakes.

West of the Black Wills the terrain thrugh at first very reat, shows more and more relief. No trees until we know a niner that conficurity meandern through a wid smewhat worded frantly cultivated bottom land otherwise no cultivation, or locally large patches of dry land farming, indicated by rectanguly pattern lighter than the general brown of the landsuppe. as the relief becomes more promounteed nanow gallery frest offear along streams, Then emsiderable dark frest in areas of mountains. flat plains between mountain patcher are grany. Ournand cultivaled, yeen arear in wer . ettlen lands. generally the wrigher, more welly the land the more worded, except for some steep ended slopes and differ. There

generally south and west bucing. hutly and east stopes generally worked. meras and butter become prominent features, Then really wough mountains - prominently dendritir drainage noth. Relation between there and distribution of frest not clear a driver. Main roads showings, curiously, in red, even in a dominantly white is light gray and tawny landrage. Frest greatly diministre. westward. Brad strips of green cultivated land along north-south trending West of this mora land, complex stream drainings going east from it and west on and from it. another green stream valley, joining the last one for the mostly. It runs som of n. e. Loull

of it dry rever yang bigh plains - gray farti north, some frest. Stream may with whide cultivated Westward vart plain with me elif locally infrictionating on flatte, areas. Thirty dry grans. There and more cultivation westward - yellow grain fields, ent curing banded derhand yellowing subequel strys. farted. along course and for artistany northward the same stripes fathern in large patelies, forming a wording with dry grand. The darker striple in the cultivated area affect to be unilar dry of areland. Mamore frest to note. Some manow gallery in ravines forthing q 10-e. dendritie fratten.

Then bare ravino Still some shiped cultivation. Then Trecless trong flain and small mountain ranges narow green cultivated bottom lands. My grany plain with frominent w- e. elma rahenen Then a tremendour mountain range mortly wooded but with a lange strang feals that in bank, with snow on its mosts summit slopes. Ey cultivates dans predominates, but with much alry grassland too the granting and landriage ended. Cultivated fortelier become more and more sparsely scattered. For to north some nominent but low, strike rearly Then a densely wooded mountain man Then much yellow

1942 montang

graing fording out to dry grass on country with the relief this more ascentilated westword, to a prominent n.e. s. w valley and ridge, strike scarp

winding between two sections of this a river, with a wide rather green

course with a mall city and an intricate system of stream

marshy a formerly zo. Then broad grassland,

high tlains wills seathered grain fields and some relief.

Contin-land with a tightly meandering

but rather named

about leaf worded a smorth grany valley then another

langely worsley motortain range. this me very extensive

area of tremendous penlir with patcher of mow, deed east-west canyon. Forest spary on roughest part, dense on more moderate slopes to westward. they frest becomes very sparse and steel mountains are largely bare, tout still on gentler slopes. Thuch frest to morty. Country now a very rough jumble of mortains and a and freet of varying dersity. Steeper slopes tend to be law. Westwarf of denne frest beromer mae continuous. some local mountain frankland. Road seas en freited rloper very Relief becomes gentles but frest almost continuous and the dense for a long distance. then more fren country but still fredminantly

werted. To northward a targe open but nather wough aren - flatter grants in grain, becoming deminant westward, Frest still along course. but gradually fading out to grandand. conyon still with with Caring sloper worded. Country along cours still mountainous, to north a large rather level basin, mostly This bounded on s. w by Lnable River Canyon. a tremendous bare gash in the land. fouth of it, and locally month of it large fratelin of freet West and world very rough mountains practically treeters, the Snalle K. canyon them. Worthward a freety area month of that the cult barin intimes. Then along course, south of know asl

1 artially wooded mountains; north Them and west of brake bigg bare mountains continue horty of Level parts in grain Why come the landraft now is a high platean but leaving flat meras on which are grainfield fore frest on moderate sloper. they slypes base and brown. Spectacular deep canyon cut this. Plateau becomes densely worded. To north the disserted flain continues, Between it and greated platean, very rough frankly wooded mountain These then extend south at least to course. been les continuously wooded, frest in canyon bottoms and on moth - portion. They front mostly disappears. The

Tregen - Washington 77 bet of disserted plain swings routh in course. Blumbig Riner Basin. tright realm of assalls in listance of west (200 mi) fandreafy now about 1/2 to 2/3 un grain, 12st bar and from except some bottom lands of a westward flowing river ( knowe?) Texture of country. along course interesting main streams flowing w. n. w. to Columbia. Tributaries flowing s. w and n.e. Columbia here is 9 great reservoir, lower bottom lands of tributarie broad Dan aron columbia when it flows west, just above a tributary from south. tributaries vast plains brown, with some yellow grain fields locally Spre mugh anded ins. 1 tribot grown well to north of Entumbia R.

mater Horizon My dame continue along both side of Columbia large areas from stres. In distance to math and well alread a large frested eng, with grass mertla and would of if Freet continuous west to Carcela Aumbig comes closes to course, even below the lam a very impressive more, as it approaches come it become incised, with prominent eliffs, fram fields and grandalfallow land?) from a voit morais. The extends aring the terracer orling both sides of a large island in ring. Here wie is again very mide obviousty backet up by a lam. forte duner on south side. Course crosser viver. Country on mostly lemans mostly granting.

Live swings north Ilmertey and fraitly worded The Dalles. My Hord on left, also mt. Jefferm. The mountains as all fine comes. Country generally worded patcher cleared right of way. l'atelies of fine fort tall conifichs. form screen. some trace peals and noch ridges. It fre reari, logged off areas, - latter expecially extensive m. e. of Portland, - in fact almost continuous over large areas, mong far than frest in Estyphya and east of A rteams. sopraching me land flattens out and forms o mosaice of cultivatron, parties some prest in carryons. Large graying mans just north of river

ang. 24 - trif from Convallie to coast, by ants. west from Envalles ( t. 20) Philomath - cultivated land with some large West of this a range of hills faitly worded with mined record growth a common out that looks like 9. lobata in valleys, with almis, are manophyllum, trasumos sp. Conifers on slopes any hilltops. Higher who most of frest is mornly conferous On the western slope of the range, near Bunt Woods a mosare of lower broadleaf wood with confers.

Toledo Salt March -

Esquance of ida march, perhaps 30'acres, Largely a matrix of grast, with admisture fatriplex patula, and Hozally saliconing, patches of Gundelia, Votentilla ansenna et, Some large rotting logs for gandthein shallon, I sendstruga soll saplings and stunted types, achitica, Vaccinium. I'veyforden

Pelf brown muchy soit.

Yaquing Bay State Varh Bluffs with linus contenta, low trees up to 4 m. a bew small Pseudotsuga. Thick undergrowth at least locally of Julthering shallon with some Fricero involuciata.

Newport Meadow of Carex obrupts and l'atentilla anserina, up to 2 m. tall in wetter spots, back of active duna and in front of

high stabilized dunes. these with Rubis, alnus, goulthonia, foricera um. Vices, Vinus contenta, etc. grassy meadows also, with clumps of Pinus. (terislium On active donner -Cakile, atronia, armeria, Empolvulu soldanella, Hygorum paronyelia, Fragaria, chiloensis, Lathynus Vicia, Potentilla, Solidago etc. Calrille me of most frames species. Photos of Pinus contenta and of general landscape showing undshear. also of Cares meadow. Outside of dunes a broad sand plat. Wrechage all vir This flat und back in dunes.

1 mi. n. of Waldfint nows of high dunes, upper slopes mostly active, locally worded many species of prammoflyter on active frants front, mostly Picea, in depressions and on being badly randflasted. In forest in depressions, also in unwooded steel sides, a dense samb or undergrowth of principally gardthering up to 3 neven more m. Tel. many photos - ending rolls of brodachromo (K-L) and b. 1 10. (62-10).

1962 Oregon 84 aug. 24 - Toledo, <del>Solt Mars</del> near mouth of yaquing River grindelia stricta ammon 41 falicania ambigua common along tidal channels 42 faliennia ambigua common along tidal channels 43 Byrus fresca Neutt. occasional at edge of 44 Juneus common galism afrance L. common in edges of common around 4 Bennon lo cally 47 glaces maritims common locally 4/8 faremes carnos 49 Orthocarpus castillezoides 50 / rightelin marting common 91 Ksendotsuga menziesii in edge of, si aster common

stem woody at base, sending up herbaceous branches, rays and tish yellow. stems terete, fleshy; fls. stammate stems terete, fleshy; flowers pistillate small tree, fruit more or less cylindre, immalure. stems slender, terete. stems weak, reclining on other plants; fly white. strul 3 m, tall; steuls. sub-fleshy fleshy; flowers yellow subflesly, brack while the leaves subterete; spikeret. show 3 m. tall, spreading; Leaves white beneatly stems ever from horizontal shizomes, rays lavender dish yellow, turning reddish.

Oregon 86 Polypodium vulgare v. occidentalis on notting log 54 Vaccinium vatrim 55 gaultheria shallon common on notting logs. aug. 24 - about 2 miles south of yaquing Buy Dridge sand dunes 56 Rhododendra macrophyllum common in low woods on fixed 57 Cares obnufita dominant in mount meadow between tragana chiloensis common on Franseig Cipinnatified Mill. locally common or 60 arctostaphylas ma- unsi common in 61 l'entacaena namorassimo common on 62 anneria maritima common on Franseria befinnatified nutt. locally common on 65 Calaile edentula (Riget) Hook. common on outer, morning

Inegan B1962 Polygonum paronychia common Calsile maritima tory. rare on outermost Runer mantemer var Greginus (Phil.) Dusin. rare in rutermost 69 Goodyers oblongifolia local on open jun woods on fixed duner 70 Maianthemum bifolium mel) in fined duner aug. 24 - 1 mily moth of Waldfrot Einsoln Co. 71 anaphalis margaritacea. locally abundant 72 agoseris apargroides (Less.) greens occasional 73 loa macranthy common 74 Glehnia leiocarpa 75 Cares macrocephala abundant, binding sand 76 Franseria chamissonis den. common 77 abonia latifolia 78 (grass) common in shellered place,

flowers punhish white

leaves fleshy, petals

purple; fruit terete, not

somepiumly swolley.

leaves with inregular

white along midril;

flowers white

fruit fleshy, finely

red-lotted.

erect stems from
buried rhizomes, involved
papery white
caerpitose

A stolons very extensive
fleshy, flowers white
rhizomes leeply buried
prostrate below, distally
ascending, frining
love mats.
prostrate, frining extensive
loose mats, flowers bright yells.

aug. 75 - Cape Perpetua Viewpoint Large promontory with steels bare clibbs and insequelar brest of Pieces on top and replex slopes. On south side aspert is rather dry - close undergrowth of gardtheria.

Cape Perhetua State Parkcanyon with big sprove
frest - luxuriant
undergrowth langely
of Gaulthering, brut
behns very abundantBlechnum, Polystichum,
athyrium of filix-feming,
Dryopteris dilatata (on log).
felaginella oregona very
abundant on a loaning
tree trunk, pendent,
mosses and liverworts
abundant on trees, also
lishers.

South of here the coastal bluffs as are wered by dense of gaultheria. Love areas of low spruce frest, badly damaged by wind and spray.

fouthward the sloper are grassy. Then send and flow firest of Pinus centrata with some sprus. This matted and windsheared on exposed areas. On steels ploper the such is mostly Pices.

South of Seation Cares Wer civers bluffs.

Inland somewhat is a tall frust, to zom. of Pinus enterta Library of gaultheria, Rhododenden Vaccinum, antostaphylos.

Low swamp of Thuja and a few Pinus christalopen and mostly not more than 5-8 m. tall. undergrowth of Ledum, myrica, Truga, gaultheria, and abundant Darlingtonia in wet Sphagnum and in water, on hummosh Pelechnum.

Honeyman State Park -Enormous active dunes, separated from a strip of smaller dunes to back of the feach. The large dunier are gradually moving into the forest - largely Pinus contexts about rom, tall tome and falix are common. Heavy undergrowth of Gaultheria, Vaccinium, Myrica taller forest inland - 4 om. mostly shows hemlock, Thuja. with Tall understern of myrica, Rhododendron, Vaccinium 8-4 m, tall.

Inland from Florence along st. 76. up Swislaw River! Hills along sides of rives, covered with considerable front has been logged off and is covered by sent by alnus frest. Along along the is common with along or lower slopes. Valley bottom in pasture, where not flooded by Lams. Where common in bence-rows and on rive banks.

Farther up the valley cinsiderable areas on slopes have been logged clean

by a chapanal-like semb.

Just west of Triangle
Labre 40 m. e. of Florence

Partly logged Pseudotauga, with some
Thija, alnus, etc.
undergrowth of
Vaccinitum parinfolium,
accer cummatum,
Cyclus, etc.
Polystichum munitum
abulndant on ground,
not much else in
densey parts of freet.
Jone Pteriodium

Interior valley - flat cultivated land, realtered quereus garryana, tratiles of word-quereus, fraserws, etc. grassy rolling hills with scattered oals and patches of values; small bushes

auditul vertical drop.

Beautiful vertical drop.

Prendo trugs - abien forest, 50m.

understory of acer macrophyllum,

a. circinatum, alnus.

1962 Origin 98 - waether for dright fin aug 31 - trif Covallis - acata on flats as well as in hills via runene Roedshot ice flaty manophylling Freeway east of Covallis become common solny and south given through with Juence Transmit orcemely flat lind intermely cultivated and froit. imall paldes and strips of soint of Road across mountains Trasinus oregona with, Elle Creek - Wingles it some Guercus garger along slought - It in record inswell with areas of fron draining much adoption of I have the freton de licer. Thelis of If may grans Them in gran and drush in assimulation of structure leef slow. Le Summer Sp. Willows Kling diversitota forms an inequalar understory along ditales. in disturbed or then areas - in a should 3 - 4 m till. wouldward frest would but climbing when becomes much may it is in contact with them. abundant, much of I low leton will where Hell and scattered ove denuded of trees, Cytism -yestramus forms a serul. place and are more but only locally. Many less worked with confine such area are grassy The thicket on the fold with stending in latur is Francis - Justines, slope, not when well is clos a surface. much of it - souls . fourth of Engens with Jolodinen st. The test Willemotte and quereur is anyang especially around ing the hills get done

1 6 (. ) Onegen I regon - California 103 Hege der var brunging forthward along court There from your trees the bluffs and seaward die build stope as yeary - touble, - within 3 m. of top. but according. All living, truiting. South of Pistol River belonging friced dunes Chamacypains lawsming Cornellerwith hipeness arbners which is drying from a disease of insect attack). south of the frest is som energent confers i d norte Reduced grove drier type has under growth of Gaultheria with extraction much along Extensing salt marsher Estrong of Coquille R. of Douglas find The has of to Bradon a lange tall watersion, flat area. Contribution Orall major or carying latystichum munition. Clintonia anderson and destingun an character species 4 Grand strip more On drie tropes Rhododendren while work is of good lives manylither str from of them covered by a I'm Could trybe much could of aretookphylor. Isome wither with souldtrugge it. vin mafile. moderatory of illododendin between reduced and macrophyllum.

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1962 California 104 fefit. 1 - autotri, Bureling to recently badly affected Buell Creek - by drighting - - anjung, etc. Flord plain of Cal Rive rind ... to - f front - Prohipeller ( recently only flooded In The said and arrived along the training in love paid. inf a few miles offerenation has never Bull took but your years on so that the more, with old and it self with even in floor is confined to willow stong so. John led live. - wine. Was covered by filling spring up to about ner had a beginning of is to a year and the feller are Wen gradually uplaced by reducted: also on sides morning trees, 12 m dily of ralley upward replaced Tim Tall slovely afraced on sides by douglas for tax och and madrine - other 1 - 10 m but carroly not Tol River meanders from continuous areally side to side of valley nosfirfully a cone it and undercutting sides, forming yew m. in reduced. Orialis regima rather trave cliffes of growing consortistated sedements. Interidium aprulinum mis of totystichur munitum about fooler mostly 10 obolivandes 18 3 allying file-faming second moreth reduced this after old at le lagging & & Tindella umportieta with Unllocks etc. Wooden Olichnum Spicant logging with heavy medinery Vertaus Tenello so destroy the environment Landonia reference that redword scarcely Carried ( mode of long, men cit, ) regenerally. time virgin redwood umbellulario 4-7 m along highway but this will be largely deslinged (cer macophyllum (muni stry stren) by widening of highway Minch bas somet.

California 1942 106 unes mean Tallest True Bull Creek a congina down great arrounts of gravel from 1955 logging, which around flory achly's tripply le (" " woton will mythe week bed so it cut laterally, under witten Trientalis End of bull truck in Valium Trifot un Bleckman of reant Roshefeller growt Volystichum Munitum Disferen smither Thounds around the Circella bases of trees, of to 17-12 Conglus in Tonings Esthy cartery lugh, are earth, with only a few em of letter above there blats, to their Gradin restlered by tuling to this far inland, to a meeting of patches of achilya, -ces 17 (n no) feet deh

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Sept 1 - an in a areate - fortrancin hand flats opposite in good show ine wind Aprilia. wolld fing layer to the foot of the mountain, If a short destance south, to just a of tention Anoficonstat hills tend 4 be lower especially on securard slope, but thing clearly mult of cleaning in most cares becomes of answer outline. Forest on west slope - house Heart Ergging ( m. until words farming a retworks. Somo gruite brushy The law patcher tend to be stable - little invarion of worky plants on many of them, others quite brushy. thereally one above en dead " recent layering in me theres sticks lying and. course is well inland Il rugged wooden mutains westward. More and more ofen graving origin worthward, also me recently loggest and fumendous variation, from dense finest to dense serul, To sparse frest, sparse

1962 California

seems to be reduced. manda fine moran of grass and frost on -vugy country. ich come gre ve ban ridges with my lare area or west or withwest styres. Im brush, from mainly the revine -bout of istication worded pravines or grany wed skoper are officently out confermely west of valley in which which Commenced. Wagnas rather then on man fulls, sof on east and mostly slope, more grass or west & zwith sittly continuous forest areas of any sigs from her on except rome street in a stope, Andrivard mor and dense, chapanal. Many burned area. Rocally michedibly Hen suddenly much mere freed, but only a chaparal and grass.

1962 California

forth of this Larger dead forthe forther of the sand many numerous over, Cending to walesce. Here another large reservoir, very complex. Emperous friest on wirt and chapanel with potelies of freet on the stope of mit. Tamalfinis. W. slope her in charles but w. of Tamalhais is a farmy area of granz with him oak trees and patelle. Ridger Tend mud and myli & be bar southward. Thin chapmand and small palely of word is ravine on angel y extends in front folden got clear arm Bay. 109 cover bully freity 9. 1. Nort flat part and bay an clear

California 1962 Oregon -43214 agreeting ray, is patel of Junear 15 Kanunsulus rare in frately of Junear 6 Hyperraum y. mitchen occasional in patch of Junes. 17 Vennica ang. 31 - about 10 mi. mil Endmacypair lawrenians white Sefet i3 - Hayward, alamedate. Calif. 19 amaranthing and by soil send full sun along street Left. 3 - summit ridge of Lanta Cruz Mits. furmint Road is mile se of faratoga gaps, on dry wadside in chrodianal with Pseudotsuga and queres relloggie tafelopalibres and nescen occasional in road cuts 71 Tremocapus migrus lordly common in full sun 22 ace mansphyllum 23 Janschneria Californica 24 Volygonum

Santa Clara - Larta Cruz Go. 1967 California small clumps, of a few sterms. Heterothera 43225 flowers yellow common in full am To Conflux corneity was california shoul 2 m, tall occarional in edge of thicket rays yellow 27 Madia in open grassy place plant strong- unelling; vo Madia my flowers yellow. common in open grany flit place nay flower yellow 29 madia 30 madia of madionides rays yellow in steel welly wants flowers yellow. 31 Artidago common or wadreds and other fren place

Sept. 4 - flight from S. T. to Chicago in Jorna 707. one of any extends inwant part the first hell east of · Cho shay. There are brown with blackish frest in navne, and steel sligger. they morth of tring Bay is of from rolling hills will no tree and ding Treated clumps. recommod valley a ma a partiduced of your and trom sultivities but eastward languare Querous of from welling end with men cultivated willey bottom land alinguises forthill more and may worded with sprant to locally dense wird probably out avodland, clatter aria mostly granny and light hown in cultivated. The relating flat surface more and me dissected eastward and more completely worded, Remount of The sto surfrace grans but increasingly searcy

upward. Jugher cleared comes storing constructions contour parming from of them green pt higher elevation. they have areas are light oney rounded m- a ridger mey very sparsely words, almost white san very Rely Taker. immediate stifles arrived labor freeten. falle on unters blue except a few many whallow area which are fight green Their beef east of laste dense by marrow, only on frust several ridges Then everything is troum lon a chould the layer. then revolute bain and range toprography with tar worm mountains, mistry by white dry lake, deserving a few green -bottom wands and cultirated areas. Unes around fallon culturates and a grean and yellow political Carry fents a frale gray mostly extensive dry lake bed with a few darlier offing patches and a tiny patch of low hill near east ride, some sand dune they and

a now of then along east side at fort of high ranged munitains. High parts of there are rather sparrely worded. another mallerday lake east of the rough, and vast alluvial frame and washes not rungly east of the wooded on brigher sloper spanely is and Kower ranger only parming and of their in wide ralley but only scattered enous or freely. a very few tous miller enought oneer freels. Extending chardens, Mountains mortly to love to be much than from and ven spessely if at all worded Vartallivial fans smalldag laker, very breally " timuch ines plicable road construction ferming close netron abouter only a ven few roads Myuntains mortly with rounded, not too rough ridges forally sum straffin eron. Mrs. with realtered trees. Condy,

Then another wide desert salle, preen patcher of cultivation to mother then a ligher range of mountain worder intropher parts, 4 will wood allivered slopes, and a small area of cultivation patches Falt Labette, this like bounded by salt flats and, in me place, evaluation, and an extension without plain, with falt dake beneftenning wear of thinly worded mountains instity mostly chaparaturered, but from 37000 thisis hard to be sure of the mountain gutem is very complex, with complicated drainage and ridge frattern. a rolley with bottom lands (cult) and a revers further to course. . The confidenced outs.

with widely spreading dragner of taxin draining westward into wellen just mentioned court extension, megularly vegetates, but thinly where while is little, densely on lighter and wateries.

Perent drainage orystoms, uncised in troat altervial discit mountains when hing eastward, but eventually entering a m- - . rener. East of bee town mountaing trending non fording gredually enter almost or alaun will ton that copyed ridges wysming, men rather miner relief all direct, but with a confriences pallery of spots of vegetation. Laglward this change to down desert mountain Henrely world mountum verille to worth. Her Locally gream, torully trumountains. Then

higher my, exally difficely and extensively worded especially I worth much gran or desert or more gentle milicy along course, my patcher of gran to south, locally elvely imbriented e-w strike sitges. then drowings to n. e. over vart. alluvial stope, disserted into Mon men men met. Kow ridger running east on mel; scattered from the whitesh (alkaling?) minging Country all brown, There's spariety tully and complet Mallen changing It a plain with a few rather rizeable lather la reservoir h Then abouttey a know mountain sance, and Jan of it, a semential a Corrected plateau and - more low more taken interfrences with walley milly a little celief, Ironnage east a mother gent High plains, stry cultivation, for visibility.

with complex incised with complex incised land for drainage fathers hand on tower terrors combinionly whitish.

great multitude of ponds or reservoirs and some

Virginia 128 Sept. 8 near Williamsburg header. of Powhatan Cr. swamp with acer nulrum and Myraa sylvatica. Shallow vide ravines ent into the evastal plain total relief perhaps 8-10 m. with many spring beads. Rich herbacour flun, many ferns not show layer. flopes with Ligurdentin, quereus frimes, times taeda, ace whom, q. veluting:, fagus, etc. Some of pines and tulips are quity large. Seft. 3 - headwaters of Powhetan Creek, near Williamsburg, in swamp 43232 Rudbechia lacinista vas digitata wet ground, dense shade 33 Elephantopus carolinianus wet sandradsile Cypeux retrofractus (L.) 7orr. wet sallywad side 35 Desmodium wet ground, dense shade

1962 Vinginia - Oliva-Md. 130 Sept. 16 - fleepy Hollow 43236 Enpatalium Isral, orcasional lebel 22 Dysart Wrods, lebel 2 mi. w. Centerville Belmont Go. Ohis 37 galium occasional in shady of tall mixed hardwood frest Seft. 30 - arnold, just north of annapolis, anne annales in much second- growth hardwood forest mortly hiriodenling.
38 asplenium platyneum (1.) Oaker
very local, on earth bank 39 Botychium dissectum on low flat ground 40 Myrica cerifiera common in edges, along roadside Botyelium vinginianum nane on low flat ground local on roadside

because of shiromatous babit; erect; heads white.

branching at base.

population sample, all plants seen. showb 2 m. tall, fruit lead-gray.

prostrate twining vine slems several m. long; fruit terete. inthedraf Atate Parl

126,000

herete a mape red mape - white sak yellow bing that i mape

-ferren - zwy in min it - CI MATTER ST. J. on ainter on the. fordirect on west by meeting will of Times morely grante of transfert order, re. malet, till, miller the contingent . - mall tower exert. in interest 50 or mil lien front lange them both me in legarith immediately spring of to the third say million there - Donator Tree well spaces ! early drawn complete

Complete spice the server of t

Alarge region africancelle, consider trans.

Consideration region.

Julian Custant.

Linearly and areas of themesons

there were to mentant and and there are

Thick youth common and one of the year.

de le matur

faction.

and colony survey Colygonalus parteria. Galium Trolium Galium lancestation

Commen florida deru trecolentar 1 cille moressen

Left. 29 - Suitland Bog access difficult - the old way all brill up. Coming from the back the steep sloper are covered by donne Kalmia and Amilax hand to penetrate.

1967 Chio Sept 12 - 2 year 1 1 le and 1 drawd dear with ald expired decidences forest - paring of por Lowning the Estimation -- 2 10 plus cly simplete trivate 35 m tale, with the second from the second 78 1.8 on I of the some the , much matter, don't to 10-15 cm. for company som, i je vamaller suppressed

134

1) / Buch Breche way 4tall almost to me itsent laner

grener . ello theer my new wer ylancin Jagara grandifoliar it et me them Myson autorities, externed fre in the said from pirang or me we were of-gri-landen Almas of.

from the steen det of small the notice of lang burnle. i musicistly many according tubereles 1- 2 commercials, con his in trant arranged

left. 30 - Falls Church area trees are just beginning to change color red maples are, some of them, beginning to show red at ends of harghes. Platames somewhat brownish or yellowish. Myssa, corners, frement sexting have turned or are turning red. Most

md,

Sept. 30 - Head of Broad Creek, anne anundel G. Ms.

Liquidanta still green

Lindendron in driest

situations show some

yellow.

Myssa in full colon, abundant around show at head of creek. Father Wheilf says that in normal years the leaves would be gove by now.

Crabs obundant in 2-3' water, est, in sand or silt bottom. about 50 males of Gernale. One blue heron, several quels. feft. 20 - annold, north of annapolis.

Second growth hardwood, very ragged and inequal, with scattered prines.

The prominent understay

1962. md.

Thyra almost completely
Turned. Ligurdambay
leginging to turn purple.
Larsafra beginning
to turn red. Trilip with
some yellow leaves, short yellow
Platanus brownish green.

Red and the beginning to to

Red maple beginning to turn.
Carpinus beginning to turn.
The interesting thing
is that almost all species
ranges much in how
from they have charged color
from tree to tree.

This words langely finited and low welling hills and flat low yound, bills and form randy lower with some fine granef and in concretions. By tryphium on low flat ground. Much honeyswelf locally till flowering slightly.

CONTROL CONTRO		
140		141
	1	
	-	

Mr. Krigh Mathism

cons

Castello Hammoch

Howestead

15 local species of perus.

should also try to get

"fincoln Hammoch" next

to Castello.

most interesting hammore, in 7 la.

Mathism interested in conservations. but afraid

people of are taking advantage.

